Application No. 10/506,654
Filed: September 3, 2004
TC Art Unit: 2826
Confirmation No.: 4807

REMARKS

Claims 1-31 are currently pending. Claims 14 and 15 have been withdrawn from further prosecution by election. Claims 1-13 and claims 16-31 stand rejected under 35 U.S.C. § 103(a). Claim 13 and claims 28-31 are drawn to allowable subject matter. Claims 1 and 16 have been amended. No new matter has been added.

The Applicant respectfully traverses these rejections in view of the above amendments and for the reasons provided below.

FORMALITIES

The Applicant respectfully requests a telephone interview with the Examiner and his Supervisor to discuss the application and the finality of the Examiner's rejections.

SECTION 103(a) REJECTIONS

Claims 1-4, 8-10, 16, 17, and 21-26 again stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication Number 2004/0058469 to Kowarz ("Kowarz") and claims 5-7, 11, 12, 18-20, and 27 again stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kowarz in view of U.S. Patent Number 6,215,579 to Bloom, et al. ("Bloom"). The Applicant respectfully traverses these rejections in view of the above amendments and for the reasons provided below.

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Claims 1-4, 8-10, 16, 17, and 21-26

Independent claims 1 and 16 recite a micromechanical apparatus that includes a first electrode, a movable second electrode that moves a distance (X) towards the first electrode as a non-linear function of an electric potential (V) applied between the electrodes and "means for linearizing the non-linear relationship between V and X". An exemplary embodiment of such means is shown in FIG. 5 and described between line 19 on page 7 and line 6 on page 8 of International Publication Number WO 03/077286 corresponding to the present application. The before and after effect of the linearizing means are shown in FIGs. 3A and 3B, respectively.

The Examiner maintains that Figures 6 and 8b in Kowarz, respectively, show the first and movable second electrodes. The Examiner also maintains that Figures 2b, 4a, and 4b in Kowarz show the non-linear relationship between the applied electric potential (V) and the distance between the two electrodes (X). These assertions are not in dispute. However, the Examiner further asserts that Figures 2b, 4a, and 4b in Kowarz also show "means for linearizing the relationship between V and X". The Applicants respectfully disagree.

Kowarz describes FIGs. 3A, 3B, 4A, and 4B in paragraphs 0030 to 0032. There is nothing in this discussion that teaches linearizing or means for linearizing the non-linear relationship between V and X. Indeed, as Kowarz's figures show, the displacement (X) with voltage (V) is non-linear until the gap between the first and second electrodes is completely closed and

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the midpoints of the first and second electrodes are in contact with one another, which arrests any further displacement (hence the flat, linear portions shown in FIGs, 4A and 4B at applied voltages greater than ±22.6 V, corresponding to the pull-down instability voltage).

Between zero (0) and ±22.6V, however, <u>in which the relationship between V and X is completely non-linear</u>, Kowarz does not teach, mention or suggest <u>linearizing the non-linear portion</u> or providing means for doing so. The linear portions of the voltage-displacement curve are not mentioned in the claim language, only the non-linear portions! The Examiner has not cited a single instance in Kowarz that teaches, mentions or suggests <u>linearizing the non-linear relationship</u>.

Accordingly, the Applicant respectfully asserts that claims 1-4, 8-10, 16, 17, and 21-26 satisfy all of the requirements of 35 U.S.C. § 101, et seq., especially § 103(a), and are in condition for allowance. Withdrawal of the rejections and the finality of the rejections is respectfully requested.

<u>Claims 5-7, 11-13, 18-20, and 27</u>

Claims 5-7, 11, 12, 18-20, and 27 depend from independent claim. Consequently, for the same reasons provided above, Kowarz does not make them obvious. Nor can the Bloom reference make up for the shortcomings of the Kowarz reference. Bloom does not teach, mention or suggest providing "means for linearizing the <u>non-linear relationship between V and X</u>".

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Accordingly, the Applicant respectfully asserts that claims 5-7, 11, 12, 18-20, and 27 satisfy all of the requirements of 35 U.S.C. § 101, et seq., especially § 103(a), and are in condition for allowance. Withdrawal of the rejections and the finality of the rejections is respectfully requested.

The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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